

CLOSED LOOP VACUUM CLEANER

Abstract of the Disclosure

A vacuum cleaner with a closed loop air system is disclosed that is intended for the cleaning of soft-coated floors, such as carpets and rugs. The cleaner includes two main units: a floating foot, containing an intake nozzle and an expanded chamber for the returning air stream, and a managing unit, containing a managing handle and supporting wheels. The floating foot has a seal along its perimeter, enclosing the space between the surface being cleaned and the bottom of the foot from the surrounding space and also contains the expanded chamber for the returning air stream. The foot and managing unit are joined by a universal joint that makes the foot floating, allowing it to swing forward, back, left and right. It also guarantees that the foot is always pressed to the surface being cleaned, independent of the position of the managing unit and handle movement. This guaranteed contact prevents the escape of the air stream, as a working medium, from the closed loop system into the surrounding space. The cleaner also contains a fan, driven by an electrical motor, centrifugal air filter, and hoses or pipes for connecting the intake nozzle, fan, filter and expanded chamber. The fan with the motor and the air filter can be mounted onto the floating foot or onto the managing unit.